

AMPHISIPHON, A NEW GENUS OF LILIACEAE.

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AMPHISIPHON, W. F. Barker, gen. nov. (Liliaceae-Scilleae).

Bulbus tunicatus. *Folia* radicalia. *Inflorescentia* perbrevis, congesta, multiflora, exinvolucrata, bracteis parvis. *Perianthium* connatum persistens; segmenta 6, quam tubus valde breviora. *Stamina* perianthium molto superantia; filamenta in dimidio inferiore tubulari-connata, sine disco, e tubi perianthii medio exorientia. *Antherae* dorsifixae. *Ovarium* obtuse angulatum; stylus erectus, subulatus, simplex, perianthium superans, stigmate minuto; ovula biseriata, numerosa. *Capsula* ovoidea, membranacea, obtuse angulata, e basi septifrangens, in stylum persistentem attenuata; semina rotundata.

Amphisiphon stylosa, W. F. Barker, sp. nov.

Bulbus globosus, tunicis saturate brunneis obtectus, diam. c. 3.5 cm. *Folia* 2—3, patentia, basi pedunculum usque ad 3 cm. amplexantia; lamina ovato-lanceolata, acuta, long. c. 9.5 cm., lat. 4.2 cm., atroviridis, nitens. *Inflorescentia* fragrans, racemosa, congesta, diam. 4 cm.; pedunculum perbreve; bracteae parvae, lanceolatae, membranaceae, long. c. 1 cm.; pedicelli breves, inferiores, long. 3 mm. *Perianthium* long. 2.2 cm., diam. 2.5 mm.; tubus long. c. 2 cm., inferne circa usque ad 9 mm. longus, albus, superne viridi-luteus, fere long. 11 mm.; segmenta crecta lutea in forma variabilia, long. 1.5 mm., gibbosa, apice minute papillosa. *Stamina* long. c. 2.3 cm., usque ad 1.5 cm. connata, paullo infra tubi medium exorientia; partes liberae arcuatae, erecto-patentiae, laete flavae, long. c. 9 mm. *Antherae* flavae, dorsifixae, introrsae, post dehiscientiam long. 1.5 mm. *Ovarium* long. 6 mm., basi diam. 2 mm., loculis multi-ovulatis, in stylum longum attenuatum, stigmate minuto. *Capsula* membranacea, obtuse angulata, lat. 1.2 cm., stylo persistente. *Semina* atra, nitentia, long. 2.5 mm.

Hab. Cape Province: Calvinia Div.: 3 miles north of Nieuwoudtville, in flower 21st June, 1934, *Salter* 4552. Also *Salter* flowered in Nat. Bot. Gdns., Kirstenbosch, May 1935, 1558/34. (*Type* in Bolus Herbarium.) Locality uncertain: flowered in Mrs. H. S. van Zijl's garden, Claremont, May 1921, *Bolus Herb.* 17137.

The district of Calvinia is rich in dwarf bulbous Liliaceous plants, for besides *Amphisiphon*, our new genus, *Androsiphon*, *Polyxena*, *Massonia* and *Neobakera* are all found within its boundaries. The first two genera mentioned could easily be mistaken for one another at first sight, the

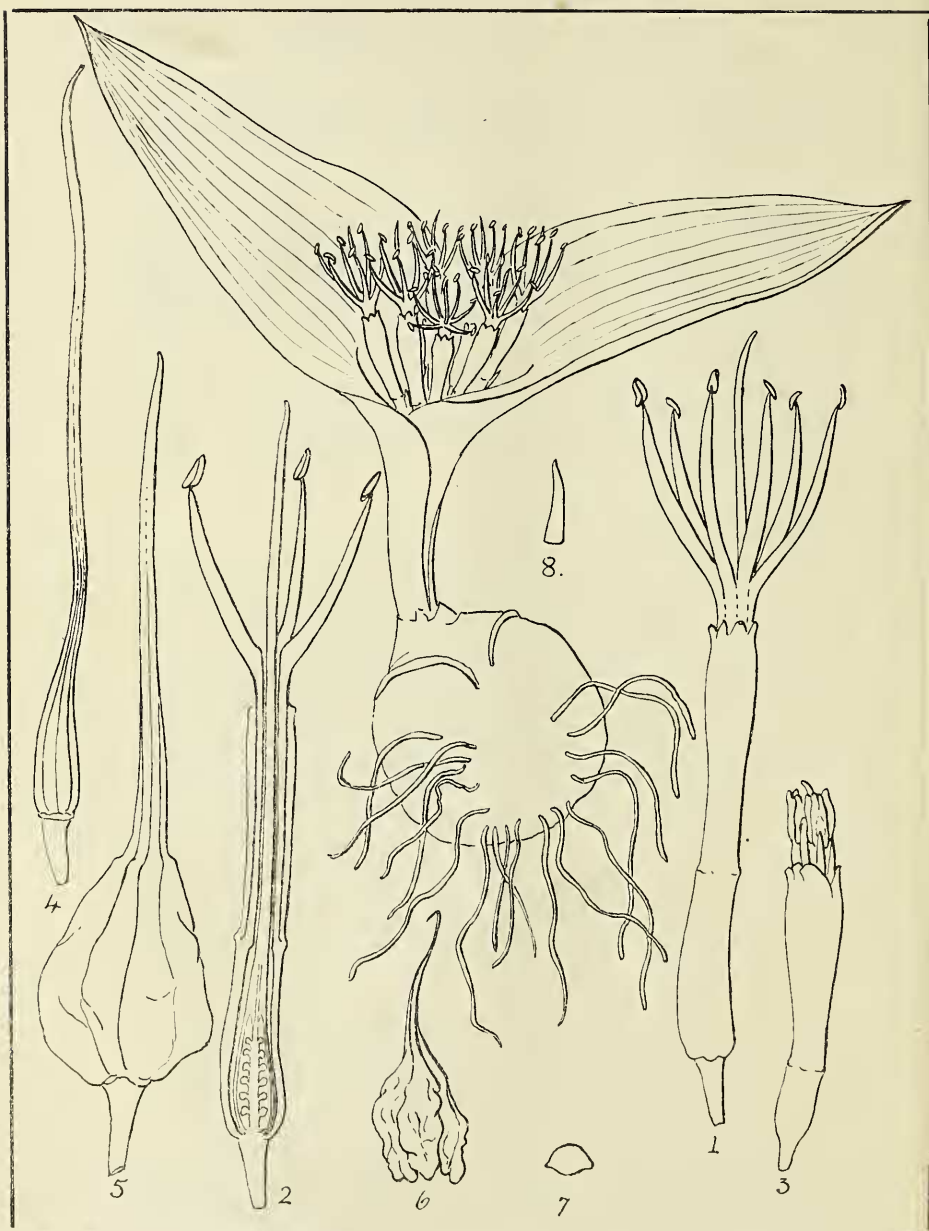


FIG. 9. *Amphisisiphon stylosa*, Barker, natural size. 1. Flower $\times 3$. 2. Longitudinal section of flower $\times 3$. 3. Bud $\times 3$. 4. Gynaecium $\times 3$. 5. Young capsule $\times 3$. 6. Ripe capsule, natural size. 7. Seed $\times 3$. 8. Bract $\times 3$. (Not. Bot. Gdns. Kirstenbosch 1558/34.) Del. W. F. Barker.

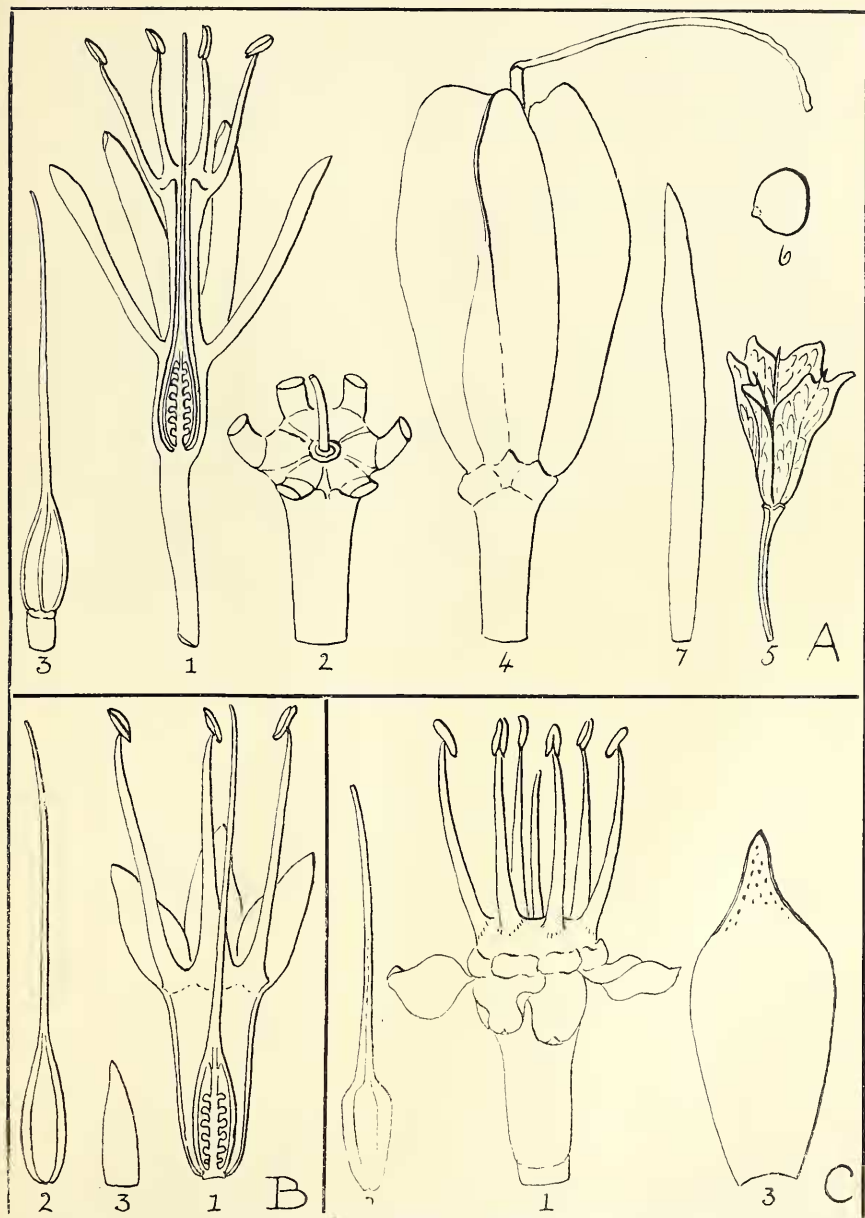


FIG. 10. A. *Androsiphon capensis*, Schltr. 1. Longitudinal section of flower $\times 3$. 2. Portion of staminal tube showing disc $\times 6$. 3. Gynaecium $\times 3$. 4. Young capsule $\times 3$. 5. Ripe capsule, natural size. 6. Seed $\times 3$. 7. Bract $\times 3$. (Nat. Bot. Gdns. Kirstenbosch 1531/26.) B. *Neobakeria haemanthoides*, Schltr. 1. Longitudinal section of flower $\times 3$. 2. Gynaecium $\times 3$. 3. Bract $\times 3$. (Salter 4452.) C. *Massonia obovata*, Jacq. 1. Flower $\times 2$. 2. Gynaecium $\times 2$. 3. Bract $\times 2$. (Bolus Herb. 20433.) Del. W. F. Barker.

habit and colour of the flowers being very similar, but apart from the fact that they usually are not in flower at the same time, they differ in several fundamental characters which are sufficient to make them generically distinct.

R. Schlechter published the genus *Androsiphon* in 1924, choosing the name on account of the long staminal tube. It is this character which links it to *Amphisiphon*, but while *Androsiphon* has relatively long spreading perianth segments, in *Amphisiphon* the perianth is tubular for a considerable distance above the insertion of the staminal tube, and the free segments are relatively short: the greater portion of the staminal tube is ensheathed within this prolonged perianth tube. The absence of a disc at the apex of the staminal tube which is so characteristic of *Androsiphon* is an important distinction. The difference in the capsules of the two plants is also very striking, that of *Androsiphon* being obovate, sharply angled at the top, leathery and dehiscing loculicidally, whereas in *Amphisiphon* the roundly angled membranous capsule is broadest at the base, and narrows gradually into the long persistent style, an unusual character within this group of genera, so far as known. In dehiscence the fruit drops from the pedicel, the three carpels then separate from the base upwards and finally each splits down the septum. Minor differences are the relatively much shorter pedicels and bracts and the smaller seeds in *Amphisiphon*. The flowers of *Amphisiphon* are scented and appear in June in the wild state, in May in cultivation, whereas those of *Androsiphon* flower in August-September in the wild state and in June in cultivation.

Another genus nearly related to *Amphisiphon* is *Neobakeria*. The latter has a long slender perianth tube, but differs in having a very short staminal tube adnate to the mouth of the perianth tube and the segments relatively large and spreading. Unfortunately the fruits in *Neobakeria* are more or less unknown except that in *N. namaquensis*, Schltr., of which we have immature material, the fruit is broadest at the base as in *Amphisiphon*, but the style withers away, the angles are acute and the dehiscence is down the loculus.

The base of the filaments in some species of *Massonia* are fused to form a fleshy disc-like tube which, however, is always short, but *Massonia* differs from all the allied genera by its reflexed perianth segments and its very broad involucrel bracts.

Description.—*Bulb* globose, covered with dark brown scales, up to 3.5 cm. diam. *Leaves* usually 2 sometimes 3, spreading; blade ovate-lanceolate, acute, up to 9.5 cm. long, 4.2 cm. broad, dark green, shining, with faint depressed lines down the face; the base enfolding the peduncle for about 3 cm. *Inflorescence* fragrant, racemose, congested, 4 cm. diam.;

peduncle very short; bracts small, lanceolate, membranous, up to 1 cm., long; pedicels short, the lower ones 3 mm. long. *Perianth* tubular, up to 2.2 cm. long; tube 2 cm. long, the lower part white for about 9 mm., the upper portion greenish yellow, nearly 1.1 cm. long; segments erect, yellow, variable in shape, 1.5 mm. long, gibbose, with a tuft of minute papillae at the apex. *Stamens* up to 2.3 cm. long, connate for about 1.5 cm., arising a little below the middle of the perianth tube; the upper part of the staminal tube is usually well exerted from the perianth and has a large drop of nectar resting in its mouth; the free parts are erectopatent, arcuate, bright yellow, up to 9 mm. long. *Anthems* dorsifixed, introrse, yellow, 1.5 mm. long after dehiscing. *Ovary* 6 mm. long, 2 mm. diam., loculi multi-ovulate, the apex attenuate into a long style, which is bright yellow and finally exerted beyond the stamens and ends in a minute stigma. *Capsule* membranous, ovate, obtusely angled, laterally compressed parallel with the peduncle, 12 mm. diam.; style persistent; dehiscence septicidal from the base; seeds many, rounded, shining black 2.5 mm. long.

The measurements in the descriptions were taken from the cultivated plants: those in the wild are smaller in proportion.
